

	GOVERNMENT OF NEWFOUNDLAND AND LABRADOR Department of Transportation and Infrastructure	BRIDGE INSPECTION REPORT B10122021-2	
Date: 10/5/2021	Inspected By: Mike Button	Category: Office - Bridge Office	
BRIDGE INFORMATION			
Site:	TCH-024 - SALMON RIVER BRIDGE (PORT BLANDFORD)		
Route:	1	Overall Length:	31.5 m
Year Built:	1960	Est: No	Overall Width: 22 m
Year Last Rehab.:	1987	Est: No	Roadway Width: 20 m
Region:	CENTRAL EAST	Sidewalk Width:	0 m
Jurisdiction:	Provincial	Clearance to R.D. or N.W.L.:	10 m
Type of Structure:	04 - Rigid Frame	Max Depth of N.W.L.:	1 m
Purpose of Structure:	04 - Over Non-Navigable Waters		
Type of Handrail:	01 - Aluminum Rail	Spans:	
Roadway Surface:	02 - Asphalt	<u>Span No.:</u>	<u>Length</u>
Alignment Vertical:	01 - Good	1	12.2
Alignment Horizontal:	01 - Good	2	0
Restrictions:	No	3	0
		4	0
		5	0
		6	0
BRIDGE PHOTOS			
			
SUBSTRUCTURE			
Condition:	P3 - Poor	Bearings:	I - Inapplicable
		Bearing Seat:	I - Inapplicable
Comments:	- Northeast gabion wall foundation basket earth retaining structure wire has disintegrated/ torn and rock is exposed to the river. Wall is 4 baskets high and may tumble during a high flow event, P1. - Several gabion baskets have fell onto the river bank on the southeast side of structure. - Northwest, Northeast and southeast abutment construction joint locations for the north and south bridge extensions are severely deteriorated with large spalls to exposed reinforcement, P3. Southwest still in fair condition, joint starting to open, no efflorescence, F1. At the bottom of the southeast construction joint, a spring is running through the concrete. - Abutment faces (besides joint locations) in fair condition, F1.		
SUPERSTRUCTURE			
Condition:	P1 - Poor	Expansion Joints:	I - Inapplicable
Comments:	- North fascia/curb has exposed reinforcement on 75% of the surface with medium corrosion. Other areas likely about to spall as delamination is advanced. - South fascia/curb has exposed reinforcement on 25% of the surface		

with mild corrosion. Other areas likely about to spall as delamination is advanced. - North side of abutment/deck corner transition has 45 degree corner cracking with efflorescence. - North and south bridge extension construction joints on the bottom of deck are severely deteriorated with large spalls through to the top layer of reinforcement with heavy efflorescent leakage. Visible dripping seen coming through both joints. Most southern joint has detached/hanging longitudinal reinforcement, P1. Exposed reinforcement severely corroded. Remainder of bottom of deck in fair condition, F1.

DECK

Condition:	P1 - Poor	Curbs:	P1 - Poor
Hand Rail:	P1 - Poor	Roadway Condition:	P3 - Poor
Approach Rail:	F1 - Fair		
Comments:	- Asphalt settled over approaches, P3. Gaps under curbs can be seen on the northeast and southwest corners. Region also mentioned repairing severe areas earlier this summer. - Roadway curbs have medium alligator cracking throughout. - Approach/exit guiderail needs extra posts near all end blocks, P3, otherwise F1. Southeast hazard marker missing. All approach/exit rails connected to end blocks. - Structural handrail exterior anchor bolts exposed on 50% of the north fascia, P1. - North and south extension construction joints heavily deteriorated (see superstructure section) indicating leakage top down through deck, P3.		

HYDROLOGY

Water Velocity:	0.5 m/s	Ice Problem:	N - No Problem
Water Depth:	0.3 m	Scour Problem:	N - No Problem
Waterway:	01 - Adequate	Debris Problem:	N - No Problem
Comments:	- See notes in substructure for gabion baskets.		

REPLACEMENT/REHABILITATION

Next Rehab. Date:	2024	Replacement Year:	2050
Antic. Rehab. Cost:	\$500,000	Replacement Cost:	\$2,500,000
Recommendations:	- Repair construction joints from the top down. Chip out/sawcut/place new waterstop/re-pour. - Replace gabion baskets or use an alternate type of retaining structure. - Salvage handrail and replace/heavily patch curbs. - Install extra posts at end blocks. - Seal curbs to prevent additional settlement. - Repave structure. If major rehab is done, structure should last another 30 years.		

OBSERVATIONS

Overall Condition:	P3 - Poor	Requires Further Inspection:	No
Additional Observations:	- Overall bridge given a P3, but some elements are in need of repair inside that window. - Hazards, traffic, steep slopes, numerous leading edges. - Go under structure with rubber boots from gravel road on southwest side.		

LEGEND:

Condition Definitions:

1 - *Good - [discontinued code].
 2 - *Fair - [discontinued code].
 3 - *Poor - [discontinued code].
 4 - *Unsafe - [discontinued code].
 G - Good.

F2 - Fair.
 F1 - Fair.
 P3 - Poor.
 P1 - Poor.
 P - Poor.

C - Unsafe (Closed to Public).
 U - Uninspectable.
 I - Inapplicable.

Problem Definitions:

N - No Problem.
 P - Possible Problem.
 K - Known Problem.
 NA - Not Applicable.

Category Definitions:

Maint. - Maintenance.
 Eng. - Engineering.
 Office - Bridge Office.

PHOTO GUIDELINES:

Inspection Photos:

Please provide photos using guidelines below:
 ● Any item which inspector feels should be documented by photograph
 ● All items noted above as being P3, P1, P, or C
 ● Any evidence of known ice, scour, debris, waterway problems

INSPECTION PHOTOS